

OMB Approval  
#1910-1100

Rev 5/1/99

Name	_____
Address	_____
City/State.	_____
Zip code	_____
Social Security	_____
Telephone	(        ) _____

**U.S. DEPARTMENT OF ENERGY  
BONNEVILLE POWER ADMINISTRATION**

**SUPPLEMENTAL QUESTIONNAIRE FOR**

**SUBSTATION OPERATOR  
D.C. SUBSTATION OPERATOR  
ASSISTANT D.C. SUBSTATION OPERATOR**

**TO APPLICANT:** The information requested on this Supplemental Questionnaire is needed to evaluate and rate your application. Fill out all pages completely and accurately. The questions have been designed to cover a wide range of skills and knowledge to insure that you receive all credit for experience to which you are entitled. However, you are not expected to have full knowledge of every element listed. Be sure your answers reflect YOUR OWN actual skills and knowledges.

**PRIVACY ACT INFORMATION**

The Bonneville Power Administration is authorized to rate applicants for Federal jobs under the provisions of Title 5, United States Code, chapter 11, sections 1104, 1302, 3301, and 3304.

The information you provide will be used to determine your qualifications for these positions. If you do not complete the information listed, we will be unable to rate your application, and you will not be considered for these positions.

Your Social Security Number is required to keep your records straight as other people may have the same name and birthday.

<b>CERTIFICATION STATEMENT</b>	
I certify that the information provided in this supplemental questionnaire is true and correct to the best of my knowledge.	
By my signature, I authorize the Bonneville Power Administration to obtain a driving abstract from the state in which I am licensed.	
Signature	Date

## SUPPLEMENTAL QUESTIONNAIRE

### Instructions

This form will be used to measure the extent of your knowledge about some of the job elements of the positions you are applying for. We do not want to measure your writing ability. Simple short descriptive answers will be adequate.

"WHEN" can be answered by month and year, e.g., October 1968, or if covering several years for example, by "09/68 - 10/72."

"HOW MANY HOURS" OR "HOW OFTEN" can be answered, for example, by "full-time" or the total approximate number of hours, weeks or months spent in that particular activity.

"WHO FOR," "WHAT COMPANY," OR "WHERE" can be answered by name of school attended, company, or employer, or "at home" or "self." In any case, your answer should be identifiable with one or more blocks of education or employment listed.

"PURPOSE," "METHOD," "HOW," etc., can be answered sometimes by a single word, or by very few words, such as "used broom to sweep out work area."

Statements made on this form will be subject to verification by contact with former employers.

Each question should be completed separately. DO NOT respond with "ditto marks" or references to answers in other questions.

### DISQUALIFYING DRIVING RECORDS

Within the past THREE years, any of the following conditions disqualify an applicant for a U. S. Government Motor Vehicle Authorization:

- A. Conviction for operating a motor vehicle under the influence of alcohol or a control substance.
- B. Conviction for leaving the scene of an accident without making his or her identity known.
- C. Driver license suspended, revoked, or canceled.
- D. Any recurrent record of auto accidents/incidents, traffic violations, or arrests which demonstrates that the employee does not have an adequate sense of responsibility. This may be shown by any of the following:
  - Conviction for fleeing or attempting to elude a police officer.
  - Conviction for a felony involving the use of a motor vehicle.
  - Two or more accidents in which the applicant was at fault.
  - Two or more excessive speeding violations (15 miles per hour or more over the posted limit.)
  - Four or more moving violations

**ELEMENT 1 OF 7: ABILITY TO PERFORM THE WORK OF A SUBSTATION OPERATOR WITHOUT MORE THAN NORMAL SUPERVISION.****PLEASE GIVE BRIEF, SPECIFIC, ANSWERS TO THE FOLLOWING QUESTIONS**

Questions	<i>If you require additional room to answer the questions, attach you answers to a separate sheet of paper.</i>
<b>1.</b> Describe the voltage class and capacity of the largest substation at which you have performed the duties of a substation/system operator.	<b>1.</b>    
<b>2.</b> Describe the bus configurations of substations where you have performed switching duties.	<b>2.</b>    
<b>3.</b> Describe the high voltage substation equipment you have switched, operated, and inspected. Include the voltage class.	<b>3.</b>    
<b>4.</b> Describe some of the control house equipment, relays, and control schemes you have switched, operated, and inspected.	<b>4.</b>    
<b>5.</b> As a substation/system operator, describe the most severe trouble situation you have responded to and your actions.	<b>5.</b>       
<b>6.</b> Describe the duties of a substation/system operator that you have performed and been responsible for.	<b>6.</b>       
<b>7.</b> Describe the duties of a substation/system operator you have performed independent of direct supervision and performed at substations remote/distant from your headquarters location.	<b>7.</b>       

**PLEASE SUPPLY THE FOLLOWING EDUCATIONAL INFORMATION**

Formal Education		High School					College				Technical School		Degrees or certificates awarded
1.	(Circle Highest Grade Completed)	8	9	10	11	12	1	2	3	4		(months completed)	

1. (Circle Highest Grade Completed) 

8	9
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(You may attach a copy of your transcripts)

2. Have you completed an Electrical Craft Apprenticeship Program? Yes ☐ No ☐ If yes, which craft/trade? \_\_\_\_\_  
*If "YES" to Electrical Craft Apprenticeship and it was not Bonneville's apprentice program please attach a list of courses taken.*

3. Was it approved by the U.S. Department of Labor? Yes ☐ No ☐

4.	Dates Attended: From	To	Length of training/Number of Years
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5. Sponsored by: \_\_\_\_\_ Did you receive a certificate: Yes ☐ No ☐

6. Which of the following did apprenticeship include? On-the-job Training ☐ Classroom ☐ Correspondence ☐

7. If trained on-the-job or through an apprenticeship program, describe your training in electrical/electronic theory.

If you had other types of formal schooling, show description, course title, type of school (military, high school, trade, correspondence, or other), dates of courses, grades received, and course description. If necessary continue on an additional sheet of paper.

[illegible]



**ELEMENT 2 OF 7 CONTINUED**

INSTRUCTIONS: PLEASE CHECK THE BOX WHICH DESCRIBES YOUR CURRENT LEVEL OF KNOWLEDGE AND WHERE INFORMATION WAS ATTAINED.

**NONE:** No knowledge of that theory either in education, training, or work experience.**LIMITED:** Basic understanding.**GOOD:** Thorough knowledge.

		CURRENT LEVEL OF KNOWLEDGE			MARK WHERE ATTAINED							
		None	Limited	Good		High School	College	Technical	Military	On-The-Job	Correspondence	Apprentice
	AC theory											
	DC theory											
	Inductive & capacitive theory											
	Algebra											
	Trigonometry											
	VARs											
	WATTS											
	Electronic or Digital Theory, including circuits, transistors, diodes											
	Power System Transmission or Distribution Theory											
	Power System Voltage Control Equipment and Theory											

**ELEMENT 3 OF 7: KNOWLEDGE OF THE PURPOSE AND USE OF ELECTRICAL POWER SYSTEM EQUIPMENT.****PLEASE SUPPLY THE FOLLOWING TRADE SPECIFIC INFORMATION**

INSTRUCTIONS: Please place the appropriate number listed below in the box indicating your knowledge level of the equipment listed. Additionally, follow the specific instructions listed in each column.

**1:** No knowledge of that equipment either in education, training, or work experience.

**2:** Basic knowledge of purpose or function.

**3:** Thorough knowledge.

POWER SYSTEM EQUIPMENT	Place 1,2,or 3 here (see above)	Give voltages you have worked with.	How you gained your knowledge: Classroom (C) On Job Tng (OJT) Work Exp (W)	Give a brief description of the purpose of each type of equipment listed. <i>(If you require additional room, attach comments on a separate sheet of paper.)</i>	Explain how each type of equipment is used in the substation that you have operated. <i>(If you require additional room, attach comments on a separate sheet of paper)</i>
<b>TRANSFORMERS</b>					
1. Power Transformers					
2. Potential transformers or potential devices					
3. Current transformers					
4. Distribution transformers					
<b>DISCONNECTS</b>					
5. Load break disconnects					
6. Motor operated disconnects					
7. Hot stick (hook) operated Disconnects					
8. Manual gang operated Disconnects					

**ELEMENT 3 OF 7 CONTINUED**

<b>POWER SYSTEM EQUIPMENT</b>	Place 1,2,or 3 here (see above)	Give voltages you have worked with.	How you gained your knowledge: Classroom (C) On Job Tng (OJT) Work Exp (W)	Give a brief description of the purpose of each type of equipment listed. <i>(If you require additional room, attach comments on a separate sheet of paper.)</i>	Explain how each type of equipment is used in the substation that you have operated. <i>(If you require additional room, attach comments on a separate sheet of paper)</i>
9. Fused disconnects					
10. Disconnects with attachments for line sectionalizing applica- tions, (quick breaks, vacuum bottles, arching resistors)					
<b>POWER SYSTEM VOLTAGE EQUIPMENT</b>					
11. Under load tap changers					
12. No load tap changers					
13. High voltage shunt capacitors					
14. Voltage regulators					
15. Shunt reactors					
<b>CIRCUIT INTERRUPTERS</b>					
16. Oil power circuit breakers including types of operating mechanism					
17. SF6 power circuit breakers including types of operating mechanism					
18. Air blast power circuit breakers including types of operating mechanism					



**ELEMENT 3 OF 7 CONTINUED**

<b>POWER SYSTEM EQUIPMENT</b>	Place 1,2,or 3 here (see above)	Give voltages you have worked with.	How you gained your knowledge: Classroom (C) On Job Tng (OJT) Work Exp (W)	Give a brief description of the purpose of each type of equipment listed. <i>(If you require additional room, attach comments on a separate sheet of paper.)</i>	Explain how each type of equipment is used in the substation that you have operated. <i>(If you require additional room, attach comments on a separate sheet of paper)</i>
<b>MISC POWER SYSTEM EQUIPMENT</b>					
19. Substation grounding systems					
20. Oil spill containment					
21. Engine generators					
22. Substation Station Service, Station Light and Power					
<b>BASIC RELAYING</b>					
23. Non-directional ground over- current relays					
24. Directional ground overcurrent relays					
25. Phase overcurrent relays					
26. Differential relays					
27. Breaker failure relays					
28. Distance relays					

**ELEMENT 3 OF 7 CONTINUED**

<b>POWER SYSTEM EQUIPMENT</b>	Place 1,2,or 3 here (see above)	Give voltages you have worked with.	How you gained your knowledge: Classroom (C) On Job Tng (OJT) Work Exp (W)	Give a brief description of the purpose of each type of equipment listed. <i>(If you require additional room, attach comments on a separate sheet of paper.)</i>	Explain how each type of equipment is used in the substation that you have operated. <i>(If you require additional room, attach comments on a separate sheet of paper)</i>
29. Voltage relays					
30. Pilot wire relays					
31. Transfer trip schemes					
32. Reclosing relays					
<b>COMPLEX RELAYS</b>					
33. Microprocessor, digital, electronic relays					
34. Single pole relays					
<b>MISC CONTROL HOUSE AND POWER SYSTEM EQUIPMENT</b>					
35. SCADA or Supervisory Control					
36. Annunciator alarm systems and Sequential Event Recorders					
37. Control batteries and chargers					

SUPPLEMENTAL QUESTIONNAIRE FOR SUBSTATION OPERATOR, D.C. SUBSTATION OPERATOR  
**ELEMENT 4 OF 7: KNOWLEDGE OF ELECTRICAL POWER SYSTEM TECHNICAL PRACTICES.**  
**7 PLEASE SUPPLY THE FOLLOWING TRADE PRACTICES INFORMATION**

NAME \_\_\_\_\_

INSTRUCTIONS: For each of the following please indicate whether you have performed these tasks as a function of a Substation/System Operator.

<b>PERFORMED</b>		<b>Power System and Substation Operations</b>
<b>YES</b>	<b>NO</b>	
		1. Switched, operated, and inspected at a substation containing an annunciator system or a computer based Sequential Event Recorder?
		2. Switched, operated, and inspected at a substation with SCADA or Supervisory Control?
		3. Switched, operated, and inspected at a Direct Current Converter Station?
		4. Switched, operated, and inspected at substations with main bus/auxiliary bus configuration?
		5. Switched, operated, and inspected at substations with breaker-and-a-half bus configuration?
		6. Switched, operated, and inspected at substations with ring bus configuration?
		7. Switched, operated, and inspected at substations with single bus/single breaker configuration?
		8. Switched, operated, and inspected at 500kv substations?
		9. Independently developed and written switching orders?
		10. Worked with other customers or Power System Dispatchers to deenergize or restore service to another utility?
		11. Recorded, reset, reported, and logged relay targets?
		12. Issued protective work clearances?
		13. Synchronized two sources of generation together?
		14. Changed fuses using hot line tools?
		15. Bypassed a power circuit breaker with disconnect switches only?
		16. Bypassed a power circuit breaker using a bus tie position on a main bus/auxiliary bus configuration?
		17. Isolated a step voltage regulator?
		18. Deenergized a current/potential sources to relays?
		19. Used schematics or substation prints to trouble shoot, etc., equipment and relay schemes during cases of trouble?
		20. Operated manual, three phase gang operated disconnects?
		21. Operated a disconnect with line sectionalizing attachments, quick break attachments, arcing resistors, vacuum bottles?
		22. Operated and decoupled/coupled and disabled/enabled a load break disconnect?
		23. Operated and decoupled/coupled and disabled/enabled a motor operated disconnect?
		24. Operated hot stick or hook operated disconnects?
		25. Operated 500 kV air blast power circuit breakers?
		26. Interpreted targets from microprocessor based or digital/electronic relays?
		27. Interpreted information from a Sequential Events Recorder?
		28. Tested various communications paths including Microwave Transfer Trip?
		29. Removed differential relays from service and return?
		30. Determined the current source for differential relays using a one-line diagram?
		31. Determined the potential source to relays?

**ELEMENT 4 OF 7 CONTINUED**

		32. Used a relay selector/transfer switches?
		33. Removed a ground overcurrent relay from service and return?
		34. Changed current settings on overcurrent relays?
		35. Changed the time settings on a protective relay?
		36. Adjusted voltage using power transformer underload tap changers?
		37. Adjusted voltage using power transformer no-load tap changer?
		38. Adjusted voltage using shunt capacitors?
		39. Adjusted voltage using shunt reactors or voltage regulator?
		40. Trained apprentice operators of lower graded operators?
		41. Trained another operator to operate a specific substation?
		42. Wrote substation instructions or instructions to cover the proper operation of a new control scheme or equipment?
		43. Transferred substation station service/station light and power to an alternate source?

ELEMENT 5 OF 7: USE OF MEASURING INSTRUMENTS.

PLEASE SUPPLY THE FOLLOWING TRADE SPECIFIC INFORMATION

INSTRUCTIONS: Please indicate you highest level of knowledge or experience with the instruments listed below by placing the appropriate number in the designated box. Additionally, briefly describe how you have used each instrument to perform the duties of a Substation/System Operator.

- 1: No knowledge of that theory either in education, training, or work experience.
- 2: Basic understanding.
- 3: Thorough knowledge.
- 4: Comprehensive understanding and the ability to instruct others.

INSTRUMENT	Place appropriate number here.	BRIEFLY DESCRIBE HOW YOU HAVE USED EACH INSTRUMENT TO PERFORM THE DUTIES OF A SUBSTATION/SYSTEM OPERATOR
1. Ammeter		
2. Voltmeter		
3. Ohmmeter		
4. Watt meter		
5. VAR meter		

SUPPLEMENTAL QUESTIONNAIRE FOR SUBSTATION OPERATOR, D.C. SUBSTATION OPERATOR PAGE  
**ELEMENT 6 OF 7: ABILITY TO INTERPRET INSTRUCTIONS, PROCEDURES, AND CIRCUIT DIAGRAMS.**  
**PLEASE SUPPLY THE FOLLOWING TRADE SPECIFIC INFORMATION**

NAME \_\_\_\_\_

INSTRUCTIONS: PLEASE INDICATE YOUR HIGHEST LEVEL OF KNOWLEDGE OR EXPERIENCE WITH THE SCHEMATICS/DIAGRAMS/INSTRUCTIONS LISTED BELOW BY PLACING THE APPROPRIATE NUMBER IN THE DESIGNATED BOX. ADDITIONALLY, BRIEFLY DESCRIBE HOW YOU HAVE USED EACH TO PERFORM THE DUTIES OF A SUBSTATION/SYSTEM OPERATOR.

- 1: Have not used.  
2: Used with the help of others or only under supervision.  
3: Responsible for using in the performance of duties as Substation/System Operator.  
4: Have instructed or supervised others in using.

DIAGRAM/INSTRUCTIONS	Place appropriate number here	BRIEFLY DESCRIBE HOW YOU HAVE USED EACH OF THE FOLLOWING TO PERFORM THE DUTIES OF A SUBSTATION/SYSTEM OPERATOR.
1. Schematic diagrams		
2. One-line diagrams		
3. Emergency Standing Operating Orders		
4. Standard Operating Procedures		
5. Equipment layout drawings		
6. Manufacturer equipment manuals		
7. Switching & Clearance Procedures and Safety Manual		
8. Verbal instructions from a Power System Dispatcher		

**ELEMENT 7 OF 7: KNOWLEDGE OF SAFETY RULES AND SWITCHING AND CLEARANCE PROCEDURES OF A LARGE, INTERCONNECTED POWER SYSTEM.**

**PLEASE SUPPLY THE FOLLOWING TRADE SPECIFIC INFORMATION**

INSTRUCTIONS: PLEASE FULLY ANSWER THE FOLLOWING QUESTIONS.

- |      | YES                      | NO                       |   |      |               |  |  |  |  |  |  |
|------|--------------------------|--------------------------|---|------|---------------|--|--|--|--|--|--|
| 1.   | <input type="checkbox"/> | <input type="checkbox"/> | Within the last 3 years, have you completed a formal First Aid training course? If YES, how many hours, what dates, and by whom?<br>_____   |      |               |  |  |  |  |  |  |
| 2.   | <input type="checkbox"/> | <input type="checkbox"/> | Within the last 2 years, have you had CPR training? If YES, give details, including date(s) of training.<br>_____   |      |               |  |  |  |  |  |  |
| 3.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you received a safety award? If YES, give details, including date(s) received. _____<br>_____  |      |               |  |  |  |  |  |  |
| 4.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you had an on the job lost time accident <b><u>in the last 5 years?</u></b> If so, give details of each accident.<br><table border="1" style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Date</th> <th style="width: 85%;">Circumstances</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> | Date | Circumstances |  |  |  |  |  |  |
| Date | Circumstances            |                          |   |      |               |  |  |  |  |  |  |
|      |                          |                          |   |      |               |  |  |  |  |  |  |
|      |                          |                          |   |      |               |  |  |  |  |  |  |
|      |                          |                          |   |      |               |  |  |  |  |  |  |
| 5.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you worked for an employer with a regular safety program? If Yes, what did the program include?<br>_____   |      |               |  |  |  |  |  |  |
| 6.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you had any safety training? If Yes, show what type of training, the approximate dates, and approximate total hours in each.<br>_____<br>_____   |      |               |  |  |  |  |  |  |
| 7.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you ever taught a safety class? If YES, what type, when, where, and what was the length of the class?<br>_____<br>_____  |      |               |  |  |  |  |  |  |
| 8.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you had training in working with <b><u>hazardous materials?</u></b> If YES, list type and length of class and what materials. Was a certificate issued?<br>_____<br>_____  |      |               |  |  |  |  |  |  |
| 9.   | <input type="checkbox"/> | <input type="checkbox"/> | Have you had experience in using personal protective equipment when working with hazardous materials? What types of equipment and for what purpose? _____<br>_____  |      |               |  |  |  |  |  |  |

**ELEMENT 7 OF 7 CONTINUED**

- |     | YES                      | NO                       |   |
|-----|--------------------------|--------------------------|---|
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | Have you ever installed portable protective grounds? If yes, where, for whom, and on what voltage equipment?  |
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | Have you ever installed electrical protective guards or barriers? If YES, where, what type, for whom, and on what voltage?  |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | Have you ever climbed a substation structure? If YES, where, what type, what height, and for whom?  |
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | Have you ever worked with manlift equipment? If YES, where, what type, for whom, and for what purpose?  |
| 14. | <input type="checkbox"/> | <input type="checkbox"/> | <p>Have you worked under a clearance and tagging procedure on high voltage electrical equipment? If YES, describe the procedure that you ordinarily use to switch out and tag a line or feeder so that maintenance work can be performed on the de-energized equipment. Who issues or approves the switching order? Who writes the switching order if a written order is used? What kinds of tags are used and where are they placed? What assurance do the men working on the de-energized equipment have that the line will not be energized while they are working on the equipment? (If necessary, continue on another piece of paper.)</p> |
| 15. | <input type="checkbox"/> | <input type="checkbox"/> | Have you received, issued, or worked under at least three clearances?   |



**ELEMENT 7 OF 7 CONTINUED**

16. Conditions of Employment. Occasionally, work may be performed under other than normal conditions. Please indicate whether you will or will not work under the following conditions.

- |    | WILL  | WILL<br>NOT |  |
|----|-------|-------------|--|
| a. | _____ | _____       | Work outside under varying climatic conditions.              |
| b. | _____ | _____       | Willing to work with respirator or full face mask.           |
| c. | _____ | _____       | Work alone in isolated locations.                            |
| d. | _____ | _____       | Work around high voltage (above 34.5 kv).                    |
| e. | _____ | _____       | Work around hazardous materials.                             |
| f. | _____ | _____       | Work around herbicides/pesticides.                           |
| g. | _____ | _____       | Work alone.  |
| h. | _____ | _____       | Work with a team or crew.                                    |
| i. | _____ | _____       | Work above the ground level (up to 60')                      |
| j. | _____ | _____       | Respond to emergency callouts.                               |
| k. | _____ | _____       | Live within one hour driving distance from the duty station. |

17. Do you have a current driver's license? YES \_\_\_\_\_ NO \_\_\_\_\_  
What is your license number? \_\_\_\_\_

In what state are you licensed? \_\_\_\_\_

Are there any restrictions? \_\_\_\_\_

18. SHOW EACH TICKET YOU RECEIVED FOR VIOLATION OF A DRIVING LAW ( DO NOT INCLUDE PARKING VIOLATION OR CHARGES OF WHICH YOU WERE FOUND NOT GUILTY) DURING THE **PAST THREE YEARS**. THIS RECORD MUST BE ACCURATE AND COMPLETE. A CHECK OF DRIVING RECORDS WILL BE MADE. IF NECESSARY, CONTINUE ON AN ADDITIONAL SHEET OF PAPER. GIVE DETAILS SUCH AS "SPEEDING 60 MPH IN A 55 MPH ZONE."

IF NO TICKETS IN PAST THREE YEARS, CHECK HERE

☐

CHARGE: (SPEEDING, DRUNK DRIVING, FAILURE TO YIELD, ETC.)	DATE	GIVE DETAILS	CITY STATE	WAS LICENSE REVOKED OR SUSPENDED	SENTENCE, AMOUNT OF FINE, ETC. INDICATE "NONE" WHEN THERE WERE NO PENALTIES IMPOSED.



**ELEMENT 7 OF 7 CONTINUED**

19. GIVES DATES AND DESCRIPTION OF EACH VEHICLE ACCIDENT YOU HAVE HAD IN THE **PAST THREE YEARS** AND INDICATE WHETHER YOU WERE OR WERE NOT FOUND AT FAULT.

**IF NO VEHICLE ACCIDENTS IN PAST THREE YEARS, CHECK HERE** ☐

TYPE OF VEHICLE YOU WERE DRIVING	DATE	DESCRIPTION OF ACCIDENT	CITY / STATE	FATALITY INVOLVED	AMOUNT OF DAMAGES	WERE YOU JUDGED AT FAULT